REMARKS

In the foregoing amendments, claims 25-39 were canceled and claims 40-44 were added to the application. New claims 40-44 all require use of a gas mixture having a xenon gas concentration of approximately 10 ppm within the laser device. With the presently claimed arrangement, the pulse oscillation of the gas mixture containing 10 ppm of xenon gas in the chamber device maximizes an output energy of oscillated pulsed laser and minimizes a dispersion of the output energy of the oscillated pulsed laser. Claims 40-44 are the only claims pending in the application at this time.

All of the claims were rejected under 35 U.S.C. § 112, second paragraph. The Official action stated that claims 25-30 are incomplete for omitting essential structure cooperative relationships of elements, such omission amounting to a gap between the necessary structural connection, citing M.P.E.P. § 2172.01. The Official action continued that the omitted structure has to do with how a mechanism or chamber is positioned relative to one another in an excimer laser and that other omitted elements include gas supply units, mirror(s), window(s), discharge electrodes, and the device(s) used to maintain the predetermined concentration of gas mixture.

Applicant respectfully submits that the positions set forth in the outstanding Office action are misplaced and incorrect. Section 2172.01 of the M.P.E.P. has to do with unclaimed essential subject matter under the first

paragraph of 35 U.S.C. § 112. Essential subject matter to a claimed invention is subject matter necessary to set forth the novelty of the invention. The items listed as missing from the claims in the outstanding Office action are not necessary subject matter for the patentability of the presently claimed invention and, therefore, not essential items. The items, such as mirrors, electrodes, etc., mentioned in the Office action are conventional items on which the patentability of the presently claimed invention does not rest. Since these items are not necessary for the novelty of the presently claimed invention, there is no need to include these items in the claims in order to comply with either the first or second paragraph of 35 U.S.C. §112. Furthermore, it is well established in the case law that applicant can claim subcombinations or only parts of structures. As explained in *Carl Zeiss Stiftung v. Renishaw PLC*, 945 F.2d 1173, 20 USPQ2d 1094 (Fed. Cir. 1991), "[I]t is entirely consistent with the claim definiteness requirement of the second ¶ of §112, to present 'subcombination' claims, drawn to only one aspect or combination elements of an invention...." As stated in *Personalized Media Communications, LLC v. U.S. Int'l Trade Comm'n*, 156 F.3d 1351, 48 USPQ2d 1351 (Fed. Cir. 1991):

> Determining whether a claim is definite requires an analysis of 'whether one is skilled in the art would understand the bounds of the claim when read in light of the specification.... If the claims read in light of the specification reasonably apprise those skilled the art of the scope of the claims, §112 demands no more.' *Miles Laboratories, Inc. v. Shandon, Inc.*, 997 F.2d 870, 27 USPQ2d 1123 (Fed. Cir. 1993), *cert. denied*, 510 U.S. 1100 (1994).

With the above in mind, applicant respectfully submits that new claims 40-44 particularly point out and distinctly claim the subject matter regarded as applicant's invention within the meaning of 35 U.S.C. § 112, second paragraph. Therefore, applicant respectfully requests that the examiner reconsider and withdraw this rejection.

Claims 25-39 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. patent No. 6,014,398 of Hofmann *et al.* (Hofmann). The statement of this rejection is set forth from the bottom of page 3 through page 4 of the Official action. Applicant respectfully submits that the teachings of Hoffman do not disclose or suggest the invention as set forth in new claims 40-44 within the meaning of 35 U.S.C. § 102 or 35 U.S.C. § 103.

The Official action stated that Hofmann at column 6, lines 35-67, discloses means for lowering first and spiking phenomena and increasing energy of the pulsed laser output including control means 22 for adding xenon gas to the laser and controlling a concentration of xenon gas. However, the applicant cannot find such discussions in the teachings of Hofmann. The teachings of Hofmann never state that the addition of xenon increases energy of the pulsed laser output. The teachings of Hofmann also never mention the use of a sensor to detect the concentration of xenon gas and never state that computer 22 controls the concentration of xenon gas. For these reasons, applicant respectfully submits that the teachings of Hofmann cannot anticipate or obviate these aspects of the presently claimed invention.

The teachings of Hofmann propose at column 7, line 30, that "The energy is lower with Xe over the entire range." See Fig. 8B of Hoffman. This teaching in Hoffmann is opposite to the presently claimed invention. In particular, the present applicant discovered that approximately 10 ppm of Xe gas in the laser gas mixture is effective for actually increasing energy of the laser output. See Fig. 3 of the present application. This is surprising and unexpected in view of the teachings of Hoffmann. All of the present claims in the application define either a method step or structure for controlling the concentration of xenon gas in the laser gas to an amount of approximately 10 ppm, which amount effectively reduces the bursting and spiking phenomena in the pulsed laser output while also increasing energy of the pulsed laser output. Due to the fact that the teachings of Hoffmann teach that energy is lower over the entire xenon concentration range, applicant respectfully submits that it is impossible for the teachings of Hoffmann to motivate one of ordinary skill in the art to the invention as set forth in the present claims, where the concentration of xenon gas is controlled to an amount of 10 ppm of the laser gas mixture for increasing energy of the pulsed laser output. Therefore, applicant respectfully submits that the presently claimed invention is distinguishable from the teachings of Hoffmann.

Furthermore, Hoffmann appears to be teaching controlling pulse energy stability by reducing the bursting phenomena. In order to reduce the bursting

phenomenon, Hoffmann proposes that the energy of the laser output must also be reduced. Hofmann has no comments concerning reducing the spike phenomenon, as set forth in the present claims. In summary, the teachings of Hoffmann propose reducing the bursting phenomena, not enhancing the bursting phenomena as in the present claims. The teachings of Hoffmann teach away from use of xenon gas to increase energy of the pulsed laser output, in contrast to applicant's claims. Finally, the teachings of Hoffmann are silent with respect to reducing the spike phenomenon, which is reduced by a method step or structure for controlling the concentration of xenon gas to an amount effective for reducing the spike phenomenon. For these reasons, applicant respectfully submits that the presently claimed invention is distinguishable from the teachings of Hoffmann. Therefore, applicant respectfully requests that the examiner reconsider and withdraw this rejection.

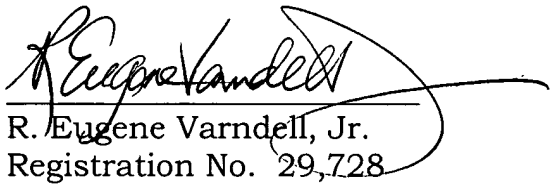
For the foregoing reasons, applicant respectively submits that the teachings of Hoffmann cannot contemplate or suggest the invention as set forth in claims 40-44 within the meaning of 35 U.S.C.§ 102 or 35 U.S.C. § 103. Therefore, applicant respectfully requests that the examiner reconsider and withdraw any and all rejections of the claims set forth in the Official action mailed February 26, 2003, and allow present claims 40-44 in the application.

In view of the foregoing amendments and remarks, favorable consideration and allowance of claims 40-44 are respectfully requested. While it is believed that the present application is in condition for allowance, should

the examiner have any comments or questions, it is respectfully requested that the undersigned be telephoned at the below-listed number to resolve any outstanding issues.

In the event this paper is not timely filed, applicant hereby petitions for an appropriate extension of time. The fee therefor, as well as any other fees which may become due, may be charged to our deposit account No. 22-0256.

Respectfully submitted,
VARNDELL & VARNDELL, PLLC
(formerly Varndell Legal Group)



R. Eugene Varndell, Jr.
Registration No. 29,728

Atty. Case No. VX992028
106-A South Columbus Street
Alexandria, Virginia 22314
(703) 683-9730
\\V:\VDOCS\W_DOCS\MAY03\P052-2028 RS.DOC